Objective: To describe the experience of a specific structure for GID people care.

Design and method: CIDIGeM, a Public Health Service (PHS) for GID people, provides a well structured program, according to Italian Standard of Care: eligibility and readiness evaluation, Hormone Therapy under medical and psychological control (Real Life Experience), Sex Reassignment Surgery (SRS) after Court authorisation.

The following features are also provided, in charge of the PHS:

- Hormone therapy;
- Speech therapy and when not enough a surgical intervention;
- Mammoplasty for MtF with breast development of level (BO-1) confirmed through ecography and mammography;
- SRS;
- Medical and psychological follow-up at 6, 12, 24 months after surgery.

Results: In 2 years activity:

- 126 GID people applied to the Center, asking for SRS
- 31 of them already authorized for SRS
- 95 of them starting the program
- 75 fulfilled the criteria to enter the program
- 20 underwent SRS (19 MtF, 1 FtM)
- 19 with good outcome or minor negative consequences
- 1 with vagina reconstruction
- 6 had speech therapy
- 5 had breast development examined
- 28 had follow-up

Conclusion: Multifactorial aspects of GID request a whole well structured intervention, with the aim of helping every subject to be integrated in the sex they feel to belong to.

T04-O-04

Severe osteoporosis with multiple vertebral fractures after gender reassignment therapy – is it male or female osteoporosis?

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Medical and Family History: The 47-year old patient E.P. presented with multiple vertebral fractures to our osteologic outpatient clinic. In 1993 our patient had undergone gender reassignment surgery from male to female. Afterwards she had continuously been on hormone replacement therapy. In addition to vertebral fractures, the patient was suffering from a clinically stable colitis which was treated with mesalazine. The patient's mother is suffering from postmenopausal osteoporosis. Osteologic work-up: CTX were elevated (0,68 ng/ml). 25-(OH)-Vitamin D3 indicated a mild deficiency. All other relevant bone parameters were normal. DXA revealed low T-scores at all sites measured: Total hip -4,3/ lumbar spine -3,9. Via bone biopsy osteomalacia and malignant infiltration of the bone marrow could be excluded. Treatment: Based on the high levels of CTX, an antiresorptive treatment with intravenous ibandronate combined with calcium/vitamin D supplements was initiated. Discussion: In spite of significant endocrine interventions, bone health in transsexual individuals after gender reassignment therapy is rarely considered. The case highlights the need for investigations which closely monitor bone mass before, during and after gender reassignment therapy. In our patient we believe that a vulnerable genetic background (i.e. the positive familiy history) has been exposed to surgical (male) hypogonadism. Although the patient is receiving hormone replacement, therapy seemed to be insufficient to preserve bone health. In summary, we believe that since she has reached her peak bone mass as a man and therefore displays male bone geometry, female HRT cannot compensate for her skeleton's need for testosterone and estrogens together.

T04-O-05

High dose Testosterone (T) treatment has no adverse effects on the endometrium of Female to Male transsexuals (FtM)

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Objects: T patches have been approved in Europe for replacement therapy in surgical menopausal women with hypoactive sexual desire. Long-term safety of T administration in women is still unknown. No data exists on the effects of T on the endometrium. The aim of this study is to evaluate the effects of high T doses administered for at least one year on the endometrium.

Methods: Endometrial biopsies from 30 FtM treated with T (i.m. injection of 100 mg Testoviron Depot /10 days), 30 postmenopausal women (M) undergoing vaginal hysterectomy and 5 premenopausal women (PrM) undergoing hysteroscopy for infertility problems were collected. Endometrial proliferation was evaluated on the basis of histopathology and expression of the Ki-67. Both M and PrM women had not received hormonal treatment for at least one year.

Results: In FtM T and estradiol (E) levels were increased to above normal female levels (T= 4.2+3.4 ng/mL; E=57.5+39.4 pg/mL). At histological analysis, FTM and M had atrophic endometrium and PrM women had proliferative endometrium. The mean Ki-67 expression in the endometrium was similar in FtM and M (1.1+1.1% and 0.6+0.9%) while it was higher in PrM (42.6 + 17.1; vs. FtM and M $p = <0.05$).

Conclusions: Our data suggests that long term, high dose T treatment does not stimulate endometrial proliferation in FtM subjects. Exogenous T administration appears to contrast proliferative effects of estrogens on endometrium.